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Application No. 09/842,370
Filed: April 25, 2001
TC Art Unit: 2162
Confirmation No.: 6576

REMARKS

The foregoing Amendment is filed in response to the official action dated January 25, 2005. Reconsideration is respectfully requested.

The status of the claims is as follows:

Claims 1-33 are currently pending.

Claims 1-33 stand rejected.

Claims 1, 16, and 20 have been amended.

The Examiner has rejected claims 1-3, 11, 15-22, and 30 under 35 U.S.C. 103(a) as being unpatentable over Lambson et al. in view of Goh et al. The Applicants respectfully submit, however, that the Goh reference fails to cure the deficiencies of the Lambson reference, and therefore the suggested combination of the Lambson and Goh references does not render amended base claims 1, 16, and 20 and the claims dependent therefrom obvious. Accordingly, it is respectfully submitted that these rejections of the claims under section 103 of the Patent Laws are unwarranted and should be withdrawn.

For example, the Lambson and Goh references, taken individually or in combination, neither teach nor suggest an apparatus for managing data corresponding to a plurality of reticles in a semiconductor manufacturing system including

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a central reticle database configured and arranged to store data associated with the plurality of reticles;

a reticle management controller communicably coupled to the central reticle database, the reticle management controller configured and arranged to store data in the central reticle database, and to retrieve data from the central reticle database; and

at least one stocker including a stocker database, a stocker controller communicably coupled to the stocker database and communicably coupled to the reticle management controller, and a plurality of storage locations configured and arranged to store the plurality of reticles, the stocker controller being configured and arranged to store data corresponding to the plurality of reticles stored within the plurality of storage locations within the stocker database,

wherein the data associated with the plurality of reticles stored in the central reticle database includes first and second data, each of the first and second data including a plurality of data portions, each portion of the first data being associated a respective reticle stored in the at least one stocker, and each portion of the second data corresponding to at least one predetermined data constant associated with the plurality of

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reticles stored in the at least one stocker (see page 6, 13-25, of the application),

wherein the reticle management controller is configured and arranged to retrieve at least a portion of the data corresponding to the plurality of reticles stored within the stocker database, and to store the retrieved data portion within the central reticle database (see page 6, lines 7-12, of the application), and

wherein the reticle management controller is further configured and arranged to manipulate and to maintain the plurality of reticles based on one or more portions of the first data associated with the respective reticles stored in the at least one stocker, and one or more portions of the second data corresponding to the predetermined data constants associated with the plurality of reticles stored in the at least one stocker (see page 13, line 27, to page 14, line 3, and page 14, lines 24-28, of the application),

as recited in amended claim 1.

As indicated on page 3 of the official action, the Lambson reference does not explicitly disclose a central reticle database and a reticle management controller. The Applicants respectfully submit that, like the Lambson reference, the Goh reference also does not explicitly disclose a central reticle database and a

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reticle management controller configured and arranged as recited in amended claim 1.

For example, the apparatus of claim 1 includes a central reticle database and a stocker database. The central reticle database is configured and arranged to store first data including data portions associated with respective reticles stored in the at least one stocker, and second data including data portions corresponding to predetermined data constants (e.g., "system wide" data constants) associated with the plurality of reticles stored in the at least one stocker. The stocker database is configured and arranged to store data corresponding to the plurality of reticles stored within the stocker.

In contrast, the Goh reference discloses a central database 10 operative to store data related to equipment operations. As described in the Goh reference, the data stored in the central database 10 can be for one particular piece of equipment or it can be for a type of equipment (see column 4, lines 24-26, and column 5, lines 61-63, and Fig. 1, of Goh et al.). The Applicants respectfully submit that the central database 10 of Goh et al. is not used to store predetermined data constants (e.g., system wide data constants) associated with the plurality of pieces of equipment. Notwithstanding the above, it is respectfully

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submitted that the Goh reference discloses nothing about the efficient handling of data associated with a plurality of reticles in a semiconductor manufacturing system, as recited in amended claim 1.

The Applicants respectfully point out that the Goh reference also discloses a temporary database 24, and a "golden" database 30 operative to store data verified to be "without errors" (see column 4, lines 48-53, and Fig. 2 of Goh et al.). It is respectfully submitted that even if the temporary database 24 were deemed to correspond to the stocker database of amended claim 1, the golden database 30 would not correspond to the central reticle database of amended claim 1. This is because the function of retrieving data stored within the temporary database, and storing the retrieved data in the golden database, could not be performed in the Goh system. As explained above, the golden database 30 is meant to store reference data without errors - it is not meant to store any data placed in the temporary database, which might conceivably contain errors. As recited in amended claim 1, the reticle management controller is configured and arranged to retrieve at least a portion of the data corresponding to the plurality of reticles stored within the stocker database, and to store the retrieved data portion within the central reticle

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database. Neither the Lambson reference nor the Goh reference teaches or suggests a reticle management controller and central reticle database having this functionality, as recited in amended claim 1.

Accordingly, as indicated above, the Goh reference fails to cure the deficiencies of the Lambson reference. This is because the Goh reference does not contemplate providing an efficient way of handling data associated with a plurality of reticles stored in at least one stocker within a semiconductor manufacturing system. More specifically, the Goh reference does not contemplate an apparatus comprising a reticle management controller, at least one stocker including a stocker database for storing data associated with reticles stored within the stocker, and a central reticle database for storing data associated with respective ones of the reticles stored within the stocker (the "first" data of amended claim 1) and predetermined data constants associated with the plurality of reticles stored within the stocker (the "second" data of amended claim 1), as recited in amended claim 1. Such an arrangement allows the reticle management controller to retrieve data from the stocker database for storage in the central reticle database, and to retrieve data from the central reticle database including the first data portions associated with the respective

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reticles and the predetermined data constants associated with the plurality of reticles, for use in manipulating and maintaining the plurality of reticles. The suggested combination of the Lambson and Goh references therefore does not render amended claim 1 and the claims dependent therefrom obvious. For at least the same reasons outlined above, the suggested combination of the Lambson and Goh references also does not render amended base claims 16 and 20 and the claims dependent therefrom obvious. Accordingly, it is respectfully submitted that these rejections of the claims under 35 U.S.C. 103 are unwarranted and should be withdrawn.

The Applicants further submit that the cited reference "PRI Automation Announces New Combination Reticle Stocker" fails to cure the deficiencies of the Lambson and Goh references, and therefore the Lambson, Goh, and PRI references, whether taken alone or in combination, cannot render amended base claims 1, 16, and 20 and the claims dependent therefrom obvious.

In view of the foregoing, it is respectfully submitted that the present application is in a condition for allowance. Early and favorable action is respectfully requested.

The Examiner is encouraged to telephone the undersigned Attorney to discuss any matter that would expedite allowance of

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the present application.

Respectfully submitted,

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